Koch, Kristine

From: James McKenna <jim.mckenna@verdantllc.com>

Sent: Thursday, August 28, 2014 5:06 PM

To: Koch, Kristine

Cc: Jennifer Worenets (jworonets@anchorqea.com); John Toll (JohnT@windwardenv.com); Bob

Wyatt (rjw@nwnatural.com); Amanda Shellenberger (ashellenberger@anchorgea.com); Carl

Stivers (cstivers@anchorqea.com)

Subject: RE: Portland Harbor - Food Web Model

Attachments: DF congeners_PRG calc spreadsheet_FWM PRGs_forEPA.XLSX

Good evening Kristine:

Please see the email below from John Toll to me that summarizes the work Windward conducted, including the attached bioaccum model that you requested. Please contact me if you have any questions.

Thanks,

Jim McKenna Verdant Solutions, LLC 5111 SE 41st Avenue Portland, Oregon 97202 Office: (503) 477-5593

Cell: (503) 309-1621

jim.mckenna@verdantllc.com

Jim,

We've completed the bioaccumulation models for the dioxin and furan congeners requested by EPA. The models are attached. The models perform well on an area-wide average basis with species predictive accuracy factors (SPAFs) generally < 2.5.

The question remains how these models will be used to calculate PRGs for the FS. We think that it could be useful to EPA if the LWG worked with EPA on using the models appropriately for calculating PRGs.

We examined the relationships between tissue congener concentrations and tissue TEQ concentrations for all the congeners of interest, and we found, as before, that 2,3,4,7,8-PCDF is still the most suitable congener for developing congener PRGs protective of TEQ risk, based on the strong correlation between 2,3,4,7,8-PCDF and TEQ concentrations in fish tissue collected across the Study Area. It is true that the congener patterns in sediment vary within Portland Harbor, but this does not appear to affect the strong correlation between 2,3,4,7,8-PCDF and TEQ in fish tissue.

Please let us know if you need additional help with this. John

John

From: Koch, Kristine [mailto:Koch.Kristine@epa.gov]

Sent: Thursday, August 28, 2014 11:19 AM

To: James McKenna

Cc: Jennifer Worenets (jworonets@anchorqea.com) **Subject:** RE: Portland Harbor - Food Web Model

Thanks Jim.

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-115 Seattle, Washington 98101-3140

(206)553-6705 (206)553-0124 (fax) 1-800-424-4372 extension 6705 (M-F, 8-4 Pacific Time, only)

From: James McKenna [mailto:jim.mckenna@verdantllc.com]

Sent: Thursday, August 28, 2014 10:10 AM

To: Koch, Kristine

Cc: Jennifer Worenets (jworonets@anchorqea.com) **Subject:** RE: Portland Harbor - Food Web Model

Good morning Kristine. I called John Toll after seeing your email and asked him about the status. He is checking with his team and will get back to me today. As soon as I get an ETA from him I will let you know. Thanks, Jim.

From: Koch, Kristine [mailto:Koch.Kristine@epa.gov]

Sent: Thursday, August 28, 2014 7:59 AM

To: James McKenna

Cc: Jennifer Worenets (<u>jworonets@anchorqea.com</u>) **Subject:** Portland Harbor - Food Web Model

Jim – I was just wondering when we were going to get the FWMs for the dioxin/furan congeners we requested?

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

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